

Department of Computer Engineering			
Digital Electronic Circuits Lab. (66292)			
Total Credits	1		
major compulsory			
Prerequisites	P1 : Digital Ciruits I (66222)		
Course Contents			
This course gives an introduction to digital lab equipment including multimeter and breadboards, and to familiarize student with the basic logic gates.			
Intended Learning Outcomes (ILO's)		Student Outcomes (SO's)	Contribution
1	The ability to understand and deal with logic gates and there characteristics .	B	20 %
2	The ability to build combinational and sequential circuits with basic logic components	C	30 %
3	The ability to design logic circuits based on counters, flip-flops and registers	C	50 %
Textbook and/ or References			
1. Lab Experiments 2. Kits User guide 3. Books and materials used in the Prerequisite course.			
Assessment Criteria		Percent (%)	
Laboratory Work		60 %	
Final Exam		40 %	
Course Plan			
Week	Topic		
1	Exp1: Introduction to TTL Logic Gate and Digital Equipment (ILO 1)		
2	Exp2: TTL &CMOS Logic Levels (ILO 1)		
3	Exp3: Open Collector &Schmitt Trigger ICs (ILO 2)		
4- 5	Exp4: Combinational Logic Design (ILO 2)		
6- 8	Exp5: Counters (ILO 3)		
9	Exp6: Flip-Flops (1) (ILO 3)		
10- 11	Exp7: Flip-Flops (2) (ILO 3)		
12- 13	Exp8: Shift Registers (1) (ILO 3)		
14- 15	Exp9: Shift Registers (2) (ILO 3)		
16	Final Exam		